Third United Nations International Conference on the Peaceful Uses of Atomic Energy

A/CONF.28/A/597
PAKISTAN
February 1964
Original: ENGLISH

Confidential until official release during Conference

Abstract

INTRODUCTION OF ROOPPUR NUCLEAR POWER PLANT IN EPWAPDA GRID

Mohammed Yusuf
Principal Engineer, Pakistan Atomic Energy Commission

The 70 MWe Rooppur Nuclear Power Plant for which construction bids have been invited is scheduled to start commercial operation in the power grid of East Pakistan Water and Power Development Authority (EPWAPDA) in the beginning of 1969. The nuclear reactor of the Plant will be either boiling water or pressurised water type. The EPWAPDA grid is presently under organisation and rapid expansion. Four small grids which are at present working as independent systems are scheduled to be all interconnected by 1969. The total generating capacity of all these small grids at present is 175 MW, whereas the total peak demand on them is 110 MW. This demand is estimated to grow by 1970 to 440 MW because of the extensive development programme currently in progress in East Pakistan, and the total generating capacity planned to be available at that time in the combined grid is 536 MW out of which 460 MW will be firm, so that the 70 MW Rooppur Plant will constitute about 12 per cent of the total generating capacity in the grid when it will start full commercial operation. The cost of imported fuels in East Pakistan varies from 60 to 80 cents per million BTU. The cost of development of her only hydro potential of 80 MW has been extremely high - $1250 per kW installed. Consequently, as this paper shows, Rooppur Plant is estimated to produce power cheaper than any conventional plant including hydro. Only gas-fired plants in certain locations of the Province will be an exception. But the Rooppur Plant will serve as base-load station in the EPWAPDA grid in any case, because its cost of incremental power is estimated to be less than that of power from a gas-fired plant.